REMARKS

Claims 31-44, 46-52, 54-57, and 59-62 are pending in this application. By this Amendment, independent claims 31, 41, 50, 56 and 61-62 are amended to recite the features of prior claim 36 (similarly, claims 45, 53 and 58), claims 36, 45, 53 and 58 are cancelled, claim 40 is amended to depend from claim 31, claims 40-41 and 52 are amended for consistency, claims 32, 50 and 61 are amended to correct grammar, and claims 61-62 are amended to recite a computer readable medium. No new matter is added.

I. Claim Objection

The Office Action objects to claims 40-41 and 52. By this Amendment, the claims are amended to overcome the objection. Applicants request withdrawal of the objection.

II. The Claims Are Definite

The Office Action rejects claims 31-62 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. By this Amendment, the cited expressions are amended to overcome the rejection. Applicants request withdrawal of the rejection.

III. The Claims Are Statutory

The Office Action rejects claims 61-62 under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. By this Amendment, the claims are amended to overcome the rejection. Applicants request withdrawal of the rejection.

IV. The Claims Are Patentable Over The Applied References

The Office Action rejects:

(1) claims 31-35, 37-44, 46-52, 54-56 and 60-62 under 35 U.S.C. §103(a) over U.S. Patent Publication No. 2002/0042664 to Kikuchi in view of U.S. Patent No. 5,525,808 to Irie et al. (Irie);

(2) claims 36, 45 and 53 under 35 U.S.C. §103(a) over Kikuchi in view of Irie, and further in view of U.S. Patent No. 6,338,925 to Tomimatu;

(3) claims 44, 57 and 59 under 35 U.S.C. §103(a) over Kikuchi in view of Irie, and further in view of U.S. Patent No. 4,833,621 to Umatate;

(4) claim 58 under 35 U.S.C. §103(a) over Kikuchi in view of Irie, and further in view of Umatate and Tomimatu; and

(5) claim 40 and 49 under 35 U.S.C. §103(a) over Kikuchi in view of Irie, and further in view of U.S. Patent Publication No. 2001/0034563 to Matsumoto et al. (Matsumoto).

Applicants respectfully traverse the rejections.

By this Amendment, independent claims 31, 41, 50, 56 and 61-62 are amended to recite said predetermined intervals are one of intervals of a predetermined number of said photosensitive objects and intervals of a predetermined period of time, previously recited in claims 36, 45, 53 and 58.

Regarding independent claims 31, 41, 50, 56 and 61-62, the proposed combination fails to disclose or suggest that the predetermined intervals being one of intervals of a predetermined number of said photosensitive objects and intervals of a predetermined period of time because: (1) Kikuchi fails to disclose predetermined intervals; (2) it would not have been obvious to modify Kikuchi by Tomimatu; and (3), even if Kikuchi would have been modified by Tomimatu, the features quoted above would not have resulted.

The Office Action cites to Kikuchi as allegedly disclosing: (a) the calculation of a non-linear component of positional deviation amount at Fig. 5, steps 314 and 318; and (b) predetermined intervals at Fig. 5, step 306 and paragraph [0208]).

Kikuchi, at step 306 (Fig. 5), determines whether m (the lot number) is greater than or equal to n (a predetermined number). If not, Kikuchi discloses that, eventually, the nonlinear components of arrangement deviations are calculated (Fig. 5, step 318). However, Kikuchi fails to disclose or suggest the predetermined <u>intervals</u> of the features quoted above because

the test of whether m is greater than or equal to n does not define a plurality of predetermined intervals.

The Office Action acknowledges that Kikuchi fails to disclose the features of (prior) claims 36, 45, 53 and 58, but cites to cites to Tomimatu at Fig. 3, step 22 and col. 4, lines 53-57 as allegedly disclosing a sampling interval based on lot number.

Tomimatu discloses a photolithography system in which the photolithography system must be periodically calibrated with "fresh" calibration parameters (Abstract). These calibration parameters are for calibrating the photolithography system (col. 1, lines 35-37), such as adjusting a light source and/or a stage (col. 1, lines 37-41). To implement this calibration, Tomimatu disclose that three wafers in the first production lot are sampled (Fig. 2, step 11). For subsequent production lots, a determination is made whether the calibration parameters are obsolete or not (Fig. 3, step 22), and, if so, the wafers sampled in the first production lot are again sampled (Fig. 3, steps 26-27).

Applicants respectfully assert that It would not have been obvious to modify Kikuchi's test of whether m is greater than or equal to n by Tomimatu's intervals because Tomimatus' intervals and Kikushi's test of whether m is greater than or equal to n relate to different determinations. That is, Tomimatus' intervals relate to intervals at which the photolithography system must be calibrated and relate to when calibration parameters are calculated. In contrast, Kikuchi's test of whether m is greater than or equal to n relates to when it is required to recalculate nonlinear components of arrangement deviations relating to shot area measurements of wafers. Thus, there is no reason to combine Kikuchi and Tomimatu as proposed.

Even if the proposed combination would have been made, the resulting combination would be the system of Kikuchi, modified to periodically calibrate the Kikuchi system by calibration parameters calculated at intervals as disclosed by Tomimatu.

For the foregoing reasons, Applicant requests withdrawal of the rejections.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

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